New planet tables for the Philip's Planisphere 2012.

Some time ago I bought a Philip's Planisphere that had the extra convenience of listing the positions of the bright planets by month from 2012 to 2020. It has become a pressing point to make replacement tables that would stick over the out of date ones.

First all the Right Ascension data for each planet for midnight on the first of each month in UTZ for the years 2021 to 2029 was collected from the website

https://keisan.casio.com/exec/system/1224748262

These data were collated on a spreadsheet which was used to convert the hour angle into degrees. These were in turn gathered into tables for the appropriate planets. The data for Mercury and the trans-Saturnian planets inspired two more tables. As the month by month Right Ascension for Mercury makes no sense being a third of the orbital period, I have drawn up a table of elongation dates. The day in each moth of elongation with a E or W for East or West. E is an evening apparition. Then for the trans-Saturnian planets the Right Ascension is taken at 0UTZ 1 January of each year. This is just an indication of which part of the sky the planets are in so that decisions about the detailed preparation for an observing session may be made. Data for Mercury was taken from the website

https://www.fourmilab.ch/images/3planets/elongation.html

The tables below are only guides and may have to be scaled to fit on the planisphere. I also take no credit for getting the data wrong and making mistakes in the tables. Please check independently before use. I recommend laminating all printed paper for use outdoors.

Venus

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	260	302	337	12	48	88	127	164	197	230	265	293
2022	295	282	297	327	359	32	68	108	148	182	219	257
2023	257	338	10	45	82	118	143	147	133	145	173	204
2024	241	282	319	356	30	68	108	148	183	217	256	295
2025	330	357	7	355	360	24	54	91	130	166	201	238
2026	280	321	354	30	107	107	143	175	200	214	203	207
2027	232	267	302	339	13	49	87	128	166	200	237	278
2028	318	353	23	54	76	70	63	84	116	151	186	220
2029	260	302	337	13	48	89	128	164	198	230	265	291

Mars

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	25	40	56	75	95	116	135	154	172	190	209	229
2022	252	276	298	322	344	5	26	46	65	79	85	78
2023	78	68	78	94	111	129	147	165	183	201	221	243
2024	267	292	316	339	1	23	44	66	87	106	121	129
2025	125	113	109	116	128	144	160	177	195	214	235	258
2026	284	309	331	354	38	38	60	82	105	124	142	155
2027	163	161	151	144	149	159	173	189	207	227	250	274
2028	300	325	347	9	30	53	75	98	120	139	157	172
2029	185	193	193	183	176	179	189	204	222	243	268	292

Jupiter

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	305	313	319	326	331	334	334	332	328	326	325	328
2022	333	339	346	352	359	4	7	9	7	4	0	360
2023	360	6	11	18	25	32	37	42	43	42	39	35
2024	34	35	39	45	52	59	67	73	78	81	80	76
2025	72	70	71	75	81	88	95	103	109	114	117	116
2026	113	109	107	107	116	116	122	129	136	142	147	149
2027	149	146	143	140	140	143	148	154	160	166	171	176
2028	178	178	175	172	169	170	172	176	182	188	194	199
2029	204	206	205	203	199	197	197	200	204	210	216	222

Saturn

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	304	308	311	314	316	316	315	313	311	310	310	312
2022	315	318	322	325	327	328	327	326	323	322	322	323
2023	323	329	332	335	338	339	339	338	336	334	333	334
2024	336	339	342	346	348	350	351	350	349	346	345	345
2025	347	349	352	356	359	1	3	2	1	359	357	357
2026	357	360	2	6	12	12	14	15	14	12	10	8
2027	9	10	13	16	20	23	26	27	26	25	23	21
2028	20	22	24	27	31	34	37	39	40	38	36	34
2029	33	34	35	39	42	46	49	52	53	53	51	48

Mercury Elongation Calendar

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	24E		6W		17E		4W		14E	25W		
2022	7E	16W		29E		16W		27E		8W		21E
2023	30W			11E	29W			10E	22W			4E
2024	12W		24E		9W		22E		5W		16E	25W
2025			8E	21W			4E	19W		29E		7W
2026		19E		3W		15E		2W		12E	20W	
2027		3E	17W		28E		15W		24E		4W	
2028	17E	27W			9E	26W			6E	17W		31E
2029		9W		21E		8W		19E		1W		14E

Trans-Saturnian planets (and Pluto)

	2021	2022	2023	2024	2025	2026	2027	2028	2029
Uranus	35	39	44	47	51	56	60	65	70
Neptune	350	352	354	356	358	0	2	4	6
Pluto	296	298	299	302	304	306	308	310	312